



# In the Public Eye

## Beyond Our Borders

### The critical issues in global health today

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In coming issues of *wjm*, this space will be dedicated to current topics and issues in "global health." No doubt this broad category means many things to many people, but we plan to present the issues, interventions, technologies, and developments that affect the health and well-being of people and communities in less developed countries. We also hope to prompt discussions about the roles and responsibilities of industrialized nations, the medical profession, the public and private sectors, and public health policy in remedying some of the health disparities that exist in the world and that are often most pronounced between the world's "health haves" and "have-nots."

#### FROM CRISIS INTERVENTION TO SUSTAINABLE ASSISTANCE

Until the recent past, our exposure to global health was primarily through the lens of crisis management. Disasters, disease outbreaks, and famine caught our attention, mostly because of the massive mobilization of large international organizations that would swoop in, meet the immediate need, and leave—only to return during the next crisis. These were issues that seemed far removed from our lives and our medical practices. Our training seldom touched on the practical treatment or diagnosis of tropical or "rare" diseases.

But that's changing. Technologic advances may have made the world smaller or,



Ninety-nine percent of maternal deaths occur in developing countries. (Photo courtesy of David and Lucile Packard Foundation)

maybe because of greater mobility, opportunities have opened up to encounter a broader global mix of populations. It could be that the “band-aid approach” has demonstrated little long-term effectiveness. Whatever the reason, we are increasingly moving away from the crisis intervention approach to global health concerns. Indeed, even the management of complex emergencies has enhanced its focus on disaster preparedness and the sustainability of humanitarian assistance.

Our approach has evolved to one where we are working side by side with countries to provide capacity, technologies, and knowledge to prevent illness and to provide the infrastructure necessary to carry out a host of preventive measures that are culturally, politically, and geographically appropriate. Through the coordinated efforts of international organizations, foundations, nongovernmental organizations, pharmaceutical companies, and others, we are providing the tools with which less developed countries are building, albeit slowly, mechanisms to prevent disease, improve nutrition, and change health behavior. It’s an exciting time, and the lessons learned are more than worthy of the attention of the medical and public health communities around the world. We hope that readers of *wjm* will agree that a section on global health is a timely addition to the journal’s features.

What follows is an overview of some of the topics and issues we hope to address in this column in coming issues. We will also provide resources and links to other organizations and programs that are involved in global health programs. We welcome your input and feedback as we hope to serve as a catalyst for further discussion and, in some way, the advancement of global health.

### WOMEN’S HEALTH

Despite the new approaches and the increased attention toward global health by governments, nongovernmental organizations, and others, we have a long way to go. The health status of people in the poorest countries remains low. And while the burden of ill health affects all people, in the developing world it falls most heavily on women and children.

This is not to say that men do not have unmet health needs as well, but in less devel-



In the world’s poorest countries, 1 in 6 children will die before the age of 5. (Photo courtesy of David and Lucile Packard Foundation)

oped countries, the cultural, political, and social structures and traditions tend to be male-dominated, and women’s voices and health needs and those of their children often go unheeded. Yet, we know that a key to improved economic and social conditions is better health and education for women and children.

Consider the fact that of the nearly

600,000 maternal deaths annually worldwide, 99% occur in less developed countries, where pregnancy-related mortality is the leading cause of death among women of reproductive age. Children who have lost their mother face high rates of illiteracy, malnutrition, and mortality.

Through this column, we hope to shed light on the health conditions of women in

the developing world—the trends, advancements, and setbacks—as well as new approaches to health services and technologies for women.

## CHILDREN'S HEALTH

The inauguration of this column coincides with the convening of the UN General Assembly's Special Session on Children in New York, September 19 through 21, 2001. This meeting of the UN general session is a follow-up to the first special session that occurred in 1990. At the first session, an ambitious agenda for improving the health of children was laid out. It rested on the recognition that poor child health and high child mortality indicate and exacerbate levels of poverty and that to reduce poverty and improve social and economic conditions, improving children's health globally must be a priority for all nations.

At the follow-up session this month, efforts will be made to assess progress in improving children's health in the past decade, and there is some good news to report. For example, since 1990:

- Overall mortality for children younger than 5 years has fallen around the world, and in more than 100 countries, the rates have been cut by one fifth
- Globally, deaths of young children from diarrheal diseases, a leading cause of death among children younger than 5 years, were reduced by 50%
- The number of reported cases of polio has declined by 99%

In the 48 poorest countries, however, improvements are slow in coming, and the reality is appalling. Each year in these countries, nearly 4 million children younger than 5 years die, mostly of preventable causes such as diarrheal dehydration, acute respiratory tract infection, malaria, and vaccine-preventable diseases. In these poorest countries, 1 child in 6 will die before his or her fifth birthday, compared with 1 in 14 in other developing countries and 1 in 167 in industrialized nations.

## TECHNOLOGY

The solutions to these vexing health problems are, in many instances, well within our

grasp. In the past 15 years, many new technologies have been developed that can be implemented in low-resource settings to assist in diagnosis and in the prevention of disease and its transmission.

The recent introduction of the Uniject™ device is a prime example of technology meeting a global health need. Uniject™ is a prefilled, single-dose injection system specifically designed to simplify delivery and to prevent reuse. Surveys in developing countries revealed that 30% to 50% of injections are not sterile. Disposable syringes are reused, and reusable syringes are often improperly sterilized. Thus, the risk of the transmission of blood-borne pathogens such as the hepatitis B virus and the human immunodeficiency virus (HIV) is high. The Uniject™ device combines medicament, syringe, and needle in a single package and is available in 0.5- and 1.0-mL dose sizes. These devices are now being used to deliver hepatitis B vaccine to newborns, and plans are in place to use the devices to deliver tetanus toxoid to women in remote populations around the world. Studies have shown that the device also holds great promise for the delivery of injectable contraceptives and emergency medicines such as uterotonic drugs for the treatment of postpartum hemorrhage.<sup>1-4</sup>

The device demonstrates the adaptation of technology to the needs, resources, and setting of the developing world. Future articles in *Beyond Our Borders* will discuss advances in health technologies and the challenges of assessing the need, developing solutions, and delivering them where they are needed most.

## THE PROMISE OF VACCINES

The incidence of polio has dropped significantly in the past decade, reflecting substantial developments in the delivery of vaccines to the developing world.<sup>5</sup> The unprecedented support of foundations such as the Bill & Melinda Gates Foundation, and the collaborative efforts of the international public health community, have allowed not only widespread distribution of existing vaccines but also advances in the development of new vaccines for major killers such as malaria and meningitis.

Although about 74% of the world's children already receive the 6 "traditional" vac-

cines,<sup>6</sup> namely, measles, BCG, polio, diphtheria, pertussis, and tetanus, those in the poorest countries are not routinely immunized against hepatitis B, *Haemophilus influenzae* type b (Hib), and yellow fever, despite the existence of these vaccines for some time. But the effort requires more than just getting the vaccines into the hands of the health communities in these countries. The challenge is to establish systems in which these vaccines are routinely and consistently provided. Because of the logistical, financial, and resource constraints in these parts of the world, even if a vaccine against HIV was discovered tomorrow, it would be a challenge, if not an impossibility, to deliver it in many poor countries.

The Global Alliance for Vaccines and Immunizations (GAVI) is a new alliance of UN agencies, nonprofit organizations, governments, donors, pharmaceutical companies, and others that has dedicated itself to universal childhood immunization and to overcoming the hurdles of vaccine development and delivery. Supported with resources from the Vaccine Fund established by the Bill & Melinda Gates Foundation, GAVI is addressing all aspects of vaccine delivery—financing, logistics, education, safety, and research.

Beyond Our Borders will discuss the work of not only GAVI but of the many other groups and organizations that are working to ensure the development and widespread distribution of vaccines.

## HIV INFECTION AND AIDS

Perhaps no other global health topic dominates our attention as much as HIV infection and AIDS—for good reason. Africa now has the highest prevalence of HIV infection of any continent, and Asia, the Caribbean, and parts of the former Soviet Union are experiencing explosive rates of growth. The outlook is not good. According to the UN Program on AIDS, in those countries where 15% or more of the adults are infected, at least 35% of boys now aged 15 years will die of AIDS.

The magnitude of the AIDS crisis in Africa is such that complete social and cultural structures are at risk. The dramatic increase in illnesses related to HIV infection and AIDS, such as tuberculosis and various opportunistic infections, are by themselves outstripping the fragile health systems and their limited re-

sources. Millions of orphans—13.2 million already around the world—face tremendous uncertainties and are at risk for a range of social and health problems.

AIDS is a calamity, and it is without doubt our most urgent global health issue. As such, it will receive considerable attention in this column.

**Author's note:** The Program for Appropriate Technology in Health (PATH) is a global nonprofit organization whose mission is to improve health, especially the health of women and children. I will at times reference projects and programs in which PATH is involved. My broader

emphasis, however, will be to raise awareness of general global health topics and their relevance to the practice of medicine and to public health. I hope to expand the number of participants lending their voices to the issue of global health.

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## A film to make you think

*ABC Africa*

Directed by Abbas Kiarostami

Mk2 Diffusion, on release in the United States in October 2001

Current estimates suggest that as many as 1.6 million children in Uganda have been orphaned by AIDS. This feature length documentary movingly portrays the plight of such children. It puts a human face on a tale of tragic enormity, taking us through orphanages and hospitals, across war-torn landscapes, and past shell torn homes.

Originally intended as a pre-production research exercise, the film is shot entirely with handheld digital video cameras. It opens with a faxed invitation from the International Fund for Agricultural Development, an agency raising awareness of the poverty in developing countries, to award winning Iranian director Abbas Kiarostami. After a flood of statistics, we arrive in Uganda to witness real stories of suffering and disease.

Early on in the film we enter a hospital next door to a warehouse busily constructing coffins. During a ward round of patients with AIDS we see a corpse being packed into an improvised cardboard coffin and being taken away on the back of a bicycle.

There are constant reminders of the recent violent civil war. Inside 1 shell-damaged house, a grandmother cares for 35 children, the AIDS orphans of her 11 deceased children.

On the buildings, Catholic inspired posters promote virginity as the only reasonable preventive medicine, while billboards advertise condoms to "make life's enjoyable moments safe ones."

We finally arrive at the main subject of the film, the Uganda Women's Effort to Save Orphans. Originally set up to deal with the orphans of the war, it now responds to the ever-escalating number of children orphaned by AIDS. We see widowed mothers enthusiastically learning to be self reliant through teachings on finance and work skills. We see happy faces both on the children who have become adopted by Westerners and on those who become supported by the collective efforts of the community.

The landscape and scenes of everyday life dominate this film. As farmers, market traders, and housewives are seen going about their work, children keep popping up to play to the cameras. We see the crew coming to terms with electrical blackouts and tropical thunderstorms lighting up the wild terrain.

Although the film lacks any in-depth interviews and commentary, we are left with a reason to believe in the efforts of the projects set up in Uganda and which depend on the continual support of the outside world.

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